

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: PETROVIC, Zmaj

SERIAL NO.: 10/511,524

FILED: March 21, 2005



ART UNIT: 3727

EXAMINER: Mai, T.M .

TITLE: CONVEYOR UNIT WITH ACCUMULATION OF RECEPTACLES SUCH AS BOTTLES

AMENDMENT "A"

Director of the U.S. Patent  
and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In response to the Office Action of April 7, 2006, a response being due by September 7, 2006, please enter the present amendments and consider the following remarks:

REMARKS

Upon entry of the present amendments, previous Claims 1 - 3 have been canceled and new Claims 4 - 6 substituted therefor. Reconsideration of the rejections, in light of the forgoing amendments and present remarks, is respectfully requested. The present amendments have been entered for the purpose of placing the claim language into a more proper U.S. format and for more clearly distinguishing the present invention from the prior art.

In the Office Action, it was indicated that Claims 1 and 2 were rejected under 35 U.S.C. § 102(b) as anticipated by the Garbey patent. Claims 1 and 3 were rejected under 35 § U.S.C. 103(a) as being obvious over the Osborne patent in view of the Garbey patent.

As an overview to the present reply, Applicant has extensively amended the original claim language in the form of new Claims 4 - 6. New Claims 4 - 6 express the original limitations in a more proper U.S. format, including proper antecedent bases and proper structural interrelationships throughout. Any indefinite terminology found in the original claim language has been corrected herein. Additionally, where function was recited in the original claim language, Applicant has now adopted "means-plus-function" terminology herein.

In the present invention, it is important to note that the object of the present invention is to provide a conveyor system which allows for an accumulation of receptacles, such as bottles. This conveyor system includes an accumulation table onto which a feeding conveyor extends upstream and which has a downstream section which leads the receptacles to a passive aligner. Importantly, it should be noted that downstream of the accumulation tables, the receptacles do not feed directly in a single row, one after another, but leave the accumulation table for a transition conveyor. This transition conveyor leads the receptacles to the passive aligner. As a result, the transition conveyor, along with the passive aligning means, brings the receptacles, initially in bulk, onto a single-row conveyor.

Independent Claim 4 specifically recites that the passive aligning means "runs parallel" to the accumulation table. The passive aligning means is a different element of the present invention from that of the accumulation table. In other words, the conveyor which permits the receptacles to be aligned is not located directly in the extension of the accumulation table, but is arranged parallel to the accumulation table. Additionally, as specified in independent Claim 4, the transverse conveyor is located downstream of the accumulation table such that the receptacles are pushed laterally to the side of the passive aligning means. As a result, the passive aligning means extends

parallel to and is located on one side of the accumulation table. The receptacles are pushed onto the transition conveying means which is juxtaposed by the accumulation table and on which the receptacle must move in an opposite direction relative to the direction of displacement on the accumulation table. As such, this transition conveying means constitutes a feeding conveyor for the passive aligning means.

Relative to the prior art Garvey patent, the accumulation table is not provided with “a transfer conveyor for pushing, downstream of the accumulation table, the receptacles to the side of the passive aligning means. It does not show the accumulation table with the passive aligning means which is arranged “parallel” to the accumulation table. Additionally, the Garvey patent does not show the accumulation table with the transition conveyor “juxtaposed” by the accumulation table and having an opposite direction to that of a transfer conveying means (located at the downstream end of the accumulation table). Functionally, the Garvey patent does not show any transition conveying means which serves to be the feeding conveyoer to the passive aligning means. Fundamentally, the Garvey patent does not appear to have a passive aligning means.

In the Garvey patent, there is an accumulation table which, upstream, has a single-row receptacle conveyor. The receptacles are evacuated, downstream, through a single-row receptacle conveyor. The chain of the feeding conveyor is located in the extension of the single-row evacuating conveyor. This chain passes through the accumulation table. On the table, the receptacles are rotated until they can successively enter onto the single-row evacuation conveyor. Unlike the present invention, because of this rotation, this is not a system in which receptacles travel in a “first in first out” manner.

Applicant respectfully contends that the limitations found in dependent Claim 5 herein. are

neither shown nor suggested in the Garvey patent. Dependent Claim 5 relates to the fact that, on the transition conveying means, the receptacles are transversely pushed by a guiding rail in a direction opposite to the direction that is imparted by the other guiding rail. As stated in amended Claim 5, the second guiding rail “urges the receptacles in a direction away from one side of the transition conveying means. Applicant respectfully contends that, on this basis, dependent Claim 5 is not “anticipated by” the Garvey patent.

Relative to the prior art Osborne patent, it can be seen that the Osborne patent merely describes a liner for a receptacle. In other words, it describes a unit for presenting these receptacle in a single row at the inlet of a processing machine. There is no accumulation described. Applicant respectfully contends that the conveyor system in the Osborne patent does not relate to the passive aligning means as described in the present invention. If the accumulation corresponds to the feeding station 10 in the Osborne patent, the accumulation table does not directly deliver its flow of receptacles onto the “passive aligning means (i.e. the passive bottle aligner), but onto a transfer conveyor that, in cooperation with a juxtaposed transition conveyor, delivers, through a shearing action, a pre-alignment of the bottles before the bottles arrive onto the “passive conveyor”. Applicant respectfully contends that the belt guiding means of the Osborne patent does not serve as the “first guiding rail” for pushing the receptacle laterally to the passive aligning means. The belt of the Osborne patent is not passive, but requires conveying under the pressure of the receptacle. Because of the motorized transfer belt in the Osborne patent, the transfer of the receptacles on the conveyor with opposite directions of displacement occurs at the speed determined through this transfer belt. In the present invention, this transfer results from the lateral pressure exerted by the receptacles onto each other. In particular, these receptacles can be transferred onto the transition conveyor 19 over

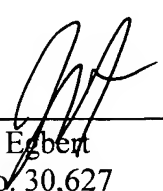
the full open width between the transition conveyor and the transfer conveyor 17. In fact, in the present invention, the transition conveyor 19 takes over, row-by-row, receptacles that are laterally pushed on the transfer conveyor 17. In contrast, in the Osborne patent, these receptacles are systematically individually pushed by the transfer belt onto conveyors with opposite directions of displacement. On this basis, Applicant respectfully contends that the combination of the Osborne and Darby patents would not show the structure of the present invention. Fundamentally, Applicant's attorney has difficulty seeing how one can take these structures described in the Osborne patent and "obviously combine" such structures with the structures and system of the Garvey patent in order to teach the present invention, as now claimed.

Based upon the foregoing analysis, Applicant contends that independent Claim 4 is now in proper condition for allowance. Additionally, those claims which are dependent upon Claim 4 should also be in condition for allowance. Reconsideration of the rejections and allowance of the claims at an early date is earnestly solicited. Since no new claims have been added above those originally paid for, no additional fee is required.

Respectfully submitted,

Date

9-6-06

  
\_\_\_\_\_  
John S. Egbert  
Reg. No. 30,627  
Andrew W. Chu  
Reg. No. 46,625  
Attorney for Applicant  
Egbert Law Offices  
412 Main Street, 7th Floor  
Houston, Texas 77002  
(713)224-8080  
(713)223-4873 fax